In re Patent Application of:
ZAKHAROFF
Serial No. **10/786,450**
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In the Claims:

This listing of claims replaces all prior versions and listing of claims in the application.

1. (Currently Amended) A communications system comprising:

at least one destination server for hosting a plurality of electronic mail (email) message boxes;

a plurality of communications devices for generating email messages each associated with a respective message box; and

a delivery server comprising a plurality of queues and a controller for

storing the email messages generated by said communications devices in a first queue, and attempting to send the stored email messages to said at least one destination server at a first sending attempt rate,

moving email messages stored in said first queue to a second queue based upon receipt of a delivery failure message,

attempting to send email messages stored in said second queue to said at least one destination server at a second sending attempt rate that is less than the first sending attempt rate, ~~and~~

the second queue being one of a plurality of queues arranged in a hierarchy, each queue in the plurality of queues having a storage interval that successively increases from a highest queue to a lowest queue,

moving email messages from a higher queue to a next lower queue after being stored in said higher queue for a duration of its storage interval, and

moving email messages having a common characteristic with a successfully delivered email message ~~from said second queue~~ to said first queue.

2. (Original) The communications system of Claim 1 wherein the delivery failures are based upon a failure to deliver email messages to respective message boxes; and wherein the common characteristic comprises a common message box.

3. (Original) The communications system of Claim 1 wherein said at least one destination server comprises a plurality of destination servers; wherein the delivery failures are based upon a failure to deliver email messages to said destination servers; and wherein the common characteristic comprises having respective message boxes hosted by a common destination server.

4. (Original) The communications system of Claim 1 wherein said controller stores directly in said second queue email messages generated by said communications devices sharing the common characteristic with an email message already stored in said second queue.

5. (Cancelled).

6. (Currently Amended) The communications system of ~~Claim 5~~ Claim 1 wherein said controller attempts to send messages from each of said queues in the hierarchy at successively decreasing sending rates from said highest queue to said lowest queue.

7. (Currently Amended) The communications system of ~~Claim 5~~ Claim 1 wherein said controller discards messages from said lowest queue in the hierarchy after being stored therein for the storage interval thereof.

8. (Original) The communications system of Claim 1 wherein at least one of said plurality of communications devices comprises a wireless communications device.

9. (Original) The communications system of Claim 1 further comprising a wide area network (WAN) connecting said at least one destination server and said delivery server.

10. (Currently Amended) A delivery server for delivering electronic mail (email) messages from a plurality of communications devices to at least one destination server hosting a plurality of email message boxes, each email message being associated with a respective message box, said delivery server comprising:

a plurality of queues arranged in a hierarchy, each queue in said plurality of queues having a storage interval associated that successively increases from a highest queue to a

lowest queue; and

a controller for

storing the email messages generated by the communications devices in a first queue, and attempting to send the stored email messages to the at least one destination server at a first sending attempt rate,

moving email messages stored in said first queue to a second queue based upon receipt of a delivery failure message,

attempting to send email messages stored in said second queue to the at least one destination server at a second sending attempt rate that is less than the first sending attempt rate,

the second queue being one of the plurality of queues,

moving email messages form a higher queue to a next lower queue after being stored in said higher queue for a duration of its storage interval,

moving email messages having a common characteristic with a successfully delivered email message ~~from said second queue~~ to said first queue.

11. (Original) The delivery server of Claim 10 wherein the delivery failures are based upon a failure to deliver email messages to respective message boxes; and wherein the common characteristic comprises a common message box.

12. (Original) The delivery server of Claim 10 wherein

the at least one destination server comprises a plurality of destination servers; wherein the delivery failures are based upon a failure to deliver email messages to the destination servers; and wherein the common characteristic comprises having respective message boxes hosted by a common destination server.

13. (Original) The delivery server of Claim 10 wherein said controller stores directly in said second queue email messages generated by the communications devices sharing the common characteristic with an email message already stored in said second queue.

14. (Cancelled).

15. (Currently Amended) The delivery server of ~~Claim 14~~ Claim 10 wherein said controller attempts to send messages from each of said queues in the hierarchy at successively decreasing sending rates from said highest queue to said lowest queue.

16. (Currently Amended) The delivery server of ~~Claim 14~~ Claim 10 wherein said controller discards messages from said lowest queue in the hierarchy after being stored therein for the storage interval thereof.

17. (Previously Presented) An electronic mail (email) communications method comprising:

hosting a plurality of email message boxes on at least

one destination server;

generating email messages each associated with a respective message box;

storing the email messages generated by the communications devices in a first queue;

attempting to send the stored email messages to the at least one destination server at a first sending attempt rate;

moving email messages stored in the first queue to a second queue based upon receipt of a delivery failure message;

attempting to send email messages stored in the second queue to the at least one destination server at a second sending attempt rate that is less than the first sending attempt rate; ~~and~~

the second queue being one of a plurality of queues arranged in a hierarchy, each queue in the plurality of queues having a storage interval that successively increases from a highest queue to a lowest queue; and

moving email messages from a higher queue to a next lower queue after being stored in the higher queue for a duration of its storage interval; and

moving email messages having a common characteristic with a successfully delivered email message ~~from the second queue~~ to the first queue.

18. (Original) The method of Claim 17 wherein the delivery failures are based upon a failure to deliver email messages to respective message boxes; and wherein the common characteristic comprises a common message box.

19. (Original) The method of Claim 17 wherein the at least one destination server comprises a plurality of destination servers; wherein the delivery failures are based upon a failure to deliver email messages to the destination servers; and wherein the common characteristic comprises having respective message boxes hosted by a common destination server.

20. (Original) The method of Claim 17 wherein storing further comprises storing directly in the second queue email messages generated by the communications devices sharing the common characteristic with an email message already stored in the second queue.

21. (Cancelled).

22. (Currently Amended) The method of ~~Claim 21~~ Claim 17 wherein attempting to send messages stored in the second queue comprises attempting to send messages from each of the queues in the hierarchy at successively decreasing sending rates from the highest queue to the lowest queue.

23. (Currently Amended) The method of ~~Claim 21~~ Claim 17 further comprising discarding messages from the lowest queue in the hierarchy after being stored therein for the storage interval thereof.

24. (Currently Amended) A non-transitory computer-

readable medium having computer-executable instructions for performing steps comprising:

storing email messages generated by a plurality of communications devices in a first queue, each email message having a respective message box associated therewith from among a plurality of message boxes hosted by at least one destination server;

attempting to send the stored email messages to the at least one destination server at a first sending attempt rate;

moving email messages stored in the first queue to a second queue based upon receipt of a delivery failure message;

attempting to send email messages stored in the second queue to the at least one destination server at a second sending attempt rate that is less than the first sending attempt rate; ~~and~~

the second queue being one of a plurality of queues arranged in a hierarchy, each queue in the plurality of queues having a storage interval that successively increases from a highest queue to a lowest queue;

moving email messages from a higher queue to a next lower queue after being stored in the higher queue for a duration of its storage interval; and

moving email messages having a common characteristic with a successfully delivered email message ~~from the second queue~~ to the first queue.

25. (Currently Amended) The non-transitory computer-readable medium of Claim 24 wherein the delivery failures are

based upon a failure to deliver email messages to respective message boxes; and wherein the common characteristic comprises a common message box.

26. (Currently Amended) The non-transitory computer-readable medium of Claim 24 wherein the at least one destination server comprises a plurality of destination servers; wherein the delivery failures are based upon a failure to deliver email messages to the destination servers; and wherein the common characteristic comprises having respective message boxes hosted by a common destination server.

27. (Currently Amended) The non-transitory computer-readable medium of Claim 24 wherein storing further comprises storing directly in the second queue email messages generated by the communications devices sharing the common characteristic with an email message already stored in the second queue.

28. (Cancelled).

29. (Currently Amended) The non-transitory computer-readable medium of ~~Claim 28~~ Claim 24 wherein attempting to send messages stored in the second queue comprises attempting to send messages from each of the queues in the hierarchy at successively decreasing sending attempt rates from the highest queue to the lowest queue.

30. (Currently Amended) The non-transitory computer-readable medium of ~~Claim 28~~ Claim 24 further comprising computer-executable instructions for performing the step of discarding messages from the lowest queue in the hierarchy after being stored therein for the storage interval thereof.